

REMARKS

Claims 1-37 and 58-67 are active. Favorable consideration is respectfully requested in light of the following remarks.

The Applicants thank Examiner Levy for his helpful comments during numerous courteous discussions of the present application between the date of mailing the outstanding Office Action and the present date of filing these papers herewith, which are summarized and expanded upon below. Further, Applicants thank Examiner Levy for his helpful suggestions in the outstanding Office Action in overcoming the rejections therein.

Claims 1-37 and 58-67 were rejected under 35 U.S.C. 103(a) as being unpatentable over Harris, U.S. Patent No. 5,972,414, in view of Hamada et al., U.S. Patent 3,686,392, Schroeder et al., U.S. Patent No. 4,160,041 and Vinci et al., U.S. Patent No. 5,382,678. The cited art does not render the invention obvious, because it does not disclose or suggest coating and curing intact cottonseed with a mixture of a liquid feed product, soluble phosphorous and a metal.

The present invention relates, in part, to a method for the production of a coated cottonseed product by coating intact cottonseed with a coating composition comprising (a) a material selected from the group consisting of water and one or more liquid feed product(s), (b) a soluble phosphorous source and (c) a metal compound capable of interacting with the soluble phosphorous source to produce a coating on the cottonseed; and curing the coated cottonseed formed. In addition, the present invention relates to products and compositions made therefrom and utilized therein, as well as methods of using the same.

Harris discloses treating whole cottonseed with an aqueous composition comprising either condensed whey solubles or condense molasses solubles, see col. 5, lines 1-7. Lines 8-

11 describe adjusting the pH of these solutions using concentrated sulfuric acid or calcium hydroxide. The solutions are then sprayed on to whole cottonseed and dried. Harris does not suggest that the combination of soluble phosphorous and a metal, such as calcium, would form a coating, does not suggest that the addition of calcium hydroxide forms a cottonseed coating, and does not require a curing step to form a coating. Moreover, there is no suggestion in Harris to use glutamic acid fermentation solubles, see e.g. Claims 3 and 16.

Hamada does not disclose whole cottonseed, see col. 2, line 1, which refers to cottonseed meal. Moreover, there is no suggestion to coat intact cottonseed with a mixture of soluble phosphorous and a metal, such as calcium, or for a method which requires curing such a solution to form a coating on intact cottonseed to provide a coated product with improved characteristics, such as improved flowability, see e.g. Examples 1 and 2 in the specification.

Schroeder describes cottonseed meal, see col. 7, line 26, and “solid block” products, see col. 9, line 25, but does not disclose or suggest coating intact cottonseed. While this document is directed to a method for preparing solid animal feeds and describes an *in situ* reaction between a hydratable metal oxide such as calcium oxide and a water soluble phosphate, such as phosphoric acid, see abstract, there is no suggestion that these compounds would form a suitable coating on intact cottonseed, for instance, a coating that improves flowability of the resulting cottonseed product.

Vinci has been discussed above and does not disclose or suggest products involving intact cottonseed.

In light of the above, any combination of the above-mentioned references clearly fails to disclose or suggest all limitations of the claimed invention as required by the MPEP (see § 2143.03 and the enclosed copy of *In re Royka* 180 USPQ 580 (CCPA 1974)). Accordingly,

any combination of the above-mentioned references clearly fails to anticipate the claimed invention, much less suggest it. Additionally, it has not been pointed out to the Applicants as to where any specific motivation lies within any of the above-mentioned references that would motivate the skilled artisan reading the same to modify the process disclosed therein towards the claimed invention.

In light of the above, it appears as if the Examiner is relying on the Applicants disclosure to supply motivation to modify the disclosure of Harris et al. and maybe even in combination with the other above-mentioned references to arrive at the claimed invention. However, this is clearly improper according to a recent decision (enclosed) by the U.S. Federal Courts in *In re Lee* (61 USPQ2D 1430 (CA FC 2002)). The *Lee* Court indicated that the Office must provide specific motivation, hint, or suggestion, found in the references relied upon to support a *prima facie* case of obviousness. In the present case, the Office appears to rely on the present specification for motivation, which is clearly forbidden according to the *Lee* Court. In light of this decision, Applicants respectfully request the Office not to use the present specification as a guidepost to combine the disparate disclosures of the cited references (see the enclosed decision in *In re Vaeck* 20 USPQ 2d 1438).

In light of the above, no *prima facie* case of obviousness can possibly exist over any combination of Harris, U.S. Patent No. 5,972,414, in view of Hamada et al., U.S. Patent 3,686,392, Schroeder et al., U.S. Patent No. 4,160,041 and Vinci et al., U.S. Patent No. 5,382,678. Accordingly, withdrawal of these grounds of rejection is respectfully requested.

Even if the Office maintains a *prima facie* case of obviousness over any combination of Harris, U.S. Patent No. 5,972,414, in view of Hamada et al., U.S. Patent 3,686,392, Schroeder et al., U.S. Patent No. 4,160,041 and Vinci et al., U.S. Patent No. 5,382,678, Applicants enclose herewith a 132 Declaration demonstrating that the claimed products,

methods and compositions are superior to that of the closest exemplified embodiment utilizing an intact cottonseed in Harris, U.S. Patent No. 5,972,414.

The data provided in the 132 Declaration provides a direct comparison between that disclosed by Harris, U.S. Patent No. 5,972,414 utilizing intact cottonseeds and the present invention. Harris clearly differs from the present invention because molasses or other liquids is applied to whole cottonseed and the pH is adjusted down and the seeds are dried with either ambient air or heated air to evaporate the water. In opposite, the claimed invention relates to any liquid feed being applied to whole cottonseed and an exothermic chemical reaction (hydration reaction) between the acid and an alkali earth metal being initiated. This exothermic chemical reaction (hydration reaction) leads to water being directly bound; thus changing from free water to bound water and resulting in hydrated salts formed. Accordingly, in opposite to utilizing a drying method to evaporate all the water (as disclosed by Harris), the present invention binds water into the coating of the whole cottonseed. Accordingly, even though the seeds are dried in the present invention, not all of the water can be removed by this drying step because some of the water is used in the reaction and bound in the coating of the whole cottonseed.

Due to all of the above combined with the results presented in the enclosed Declaration, it is clear that the present invention is superior to that disclosed by Harris. That is, cottonseed samples made via methods A (Harris:acid) and B (Harris:alkali) are about 25% and 30% less dense than cottonseeds prepared by the present invention (Sample C), respectively. Further, the data presented in the present invention demonstrate that cottonseed samples made via methods A (Harris:acid) and B (Harris:alkali) are about 47% and 55% less flowable than cottonseeds prepared by the present invention (Sample C), respectively.

In light of all of the above, no combination of Harris with any of Hamada et al., U.S. Patent 3,686,392, Schroeder et al., U.S. Patent No. 4,160,041 and Vinci et al., U.S. Patent No. 5,382,678 could possibly suggest the claimed invention. Accordingly, withdrawal of this ground of rejection is respectfully requested.

Applicants thank Examiner Levy for indicating that he would withdraw the rejection of Claims 12, 25, 37, and 67 under 35 U.S.C. 112, second paragraph as being indefinite for the recitation "water absorbers" if Applicants were able to demonstrate that the skilled artisan would recognize such by directing the Examiner's pages 292-295 of the Official Publication of the Association of American Feed Control Officials, copy was enclosed with the Response filed February 4, 2003. Applicants also respectfully submit that, in light of the above and the fact that such embodiments may be functionally defined, one with skill in the art would understand which feed additives would have these properties. The Office has not presented Applicants reasons as to why the disclosure of pages 292-295 of the Official Publication of the Association of American Feed Control Officials fails to demonstrate why one with skill in the art would not understand which feed additives would have these properties. Absent such reasoning, Applicant have not had ample opportunity to fairly respond.

Moreover, MPEP §2164.05(a) states:

The specification need not disclose what is well-known to those skilled in the art and preferably omits that which is well-known to those skilled and already available to the public... The state of the art existing at the filing date of the application is used to determine whether a particular disclosure is enabling as of the filing date.

Therefore, the failure to state each and every possible structural aspect of the claimed “water absorbers”, in and of itself, is not sufficient to support the rejection

In addition, it should be noted that the MPEP states that the Office should supply an analysis as to why the claimed invention is "vague and indefinite" (See MPEP 2173.02, page 2100-199, second column, paragraph 2). To date, there is not an analysis as to why the “water absorbers” is vague and indefinite. Accordingly, it is difficult to understand why the skilled artisan could not read the claims in view of the specification and pages 292-295 of the Official Publication of the Association of American Feed Control Officials and understand the “water absorbers”, especially since the Office does not require the Applicant to recite each and every structural limitation of the claimed invention, most especially those well understood in the related technical field. If the Office maintains this rejection, Applicants respectfully request that the Office to provide an analysis as to why the claimed invention is vague and indefinite and make any subsequent Office Action non-Final.

In light of the above, Applicants respectfully request withdrawal of this ground of rejection.

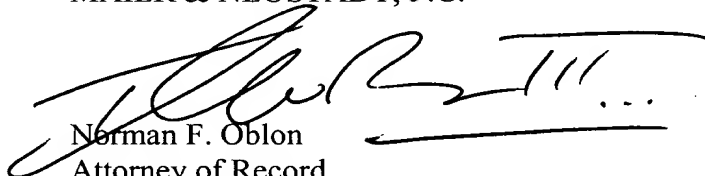
Claims 1-4, 6-17, 19-29, 31-39, 41-49, and 51-57 were provisionally rejected under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-49 and 51-57 of copending U.S. Application No. 09/950,687. The Applicants thank the examiner for his suggestion about addressing this issue by filing a terminal disclaimer and respectfully request that they be allowed to defer their response to this rejection until the identification of otherwise allowable subject matter. More specifically, since the rejection is a provisional double patenting rejection, it is requested that this provisional rejection be held in abeyance, until the issues in the present case are resolved and a determination of allowable subject matter, if any, is made. At this point, if allowable

subject matter is present, the present case may be allowed to issue as a patent and a provisional or regular double patenting rejection may be made against Serial No. 09/950,687.

Applicants respectfully submit that the present application is now in condition for allowance. Favorable reconsideration is respectfully requested. Should anything further be required to place this application in condition for allowance, the Examiner is requested to contact the undersigned by telephone.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Norman F. Oblon
Attorney of Record
Registration No. 24,618

Thomas W. Barnes III, Ph.D.
Registration No. 52,595



22850

(703) 413-3000
NFO:TWB